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REORGANISATION OF INLAND TRANSPORT.

In view of the obvious crucial importance of transport services in war-time, the tentativeness of the changes made during the last three years in the organisation of the industries concerned may well cause some surprise.

From the pre-war years we inherited a transport system of great potential capacity but of dubious efficiency. The latter was due mainly to the continued failure of the Government to view the major transport industries as component parts of a single system and the consequent maintenance of a regime of competition among the suppliers of technically complementary services. The exigencies of war have compelled a reluctant and piecemeal abandonment of this attitude and a gradual approach has been made towards the establishment of a true war-time transport system in which the available means would be used in the most effective way. The pre-war policy of waiting for ' co-ordination ' to emerge spontaneously from road-rail competition (an event which would, it was hoped, occur before the final bankruptcy of the railway companies), while being probably a cause of wasteful excess capacity in peace-time, did produce as a by-product a desirable margin for use when the economy as a whole at last approached full employment. This margin was, however, fairly rapidly absorbed after the outbreak of war, and during the last year events outside the control of the Ministry of War Transport have reduced the supply of rubber, petrol and coal and so have resulted in a contraction of the available capacity of the system as a whole. The course of events has therefore at last created in the transport industries the situation familiar in war-time of a continued expansion of demand confronting a highly inelastic supply. Whether this is indeed a new situation, or whether it is only its growing recognition that is new, is an open question. The fact is that the declared policy of minimising changes in the peace-time organisation of the transport industries has recently been broken through by a series of measures which will certainly improve the war-time situation and may have beneficial post-war results.

The first step in the war-time control of any commodity has usually been the restriction of civilian non-essential demand. This has also been the case in transport organisation. From appeals and admonitions to refrain from the purchase of railway travel, the Ministry of War Transport has passed to the stage of limitation of supply and price increases. What has been the next step in the case of many consumers' goods—rationing—is said to have been considered in the case of railway passenger travel, but the principle has been discarded for the time being as involving too great administrative difficulties. As so often, the method of appeal met with mediocre success, and it remains to be seen whether the raising as from 5th October 1942 of the average price of passenger travel (by the elimination of cheap day returns and similar special facilities) will have an appreciable effect on the demand. Pre-war investigations suggested that the elasticity of demand for railway travel was rather less than the companies appeared (in their reduced fares policy) to suppose : it is not likely to have been increased by the subsequent increases in money incomes and the reduction of opportunities for alternative expenditure. The supply has been limited partly by the withdrawal of train services, and by the elimination of many rural and suburban coach services from the end of September. The object of the latter was to economise rubber and petrol, now regarded as more important than the increase in the consumption of coal by additional short-distance train services in which it has resulted. The modification of urban bus services, particularly the withdrawal of later night services and priorities for war workers, have probably been collectively of some importance. At the same time the efforts of the railway companies have led to a more economical utilisation of the available passenger train capacity. The elimination of many restaurant cars, the lengthening of trains and the extensive occupation of corridors and guards' vans has enabled a simultaneous *increase* of about 50% in passenger miles worked and *decrease* in passenger train miles of about 25% compared with pre-war years. This means that the average utilisation of all passenger trains has been approximately doubled. It seems likely, however, that the present restriction of passenger travel will have to be increased. Even if no new regulation is introduced, the existing limitation of the number of passenger trains, including extras, permitted on any day, to the number operated at the corresponding period a year ago or to the number possible without interference with urgent traffic must certainly begin to have more perceptible effect than it had, for example, last Bank Holiday, as the volume of ' urgent ' traffic is sure to increase.

Some 200 extra trains per day are expected to be required this winter to deal with increased military and industrial movements. This is in addition to the increase of 1,000 in the daily number which has already taken place. In meeting the increased volume of traffic, the railways have obtained some assistance from the increases in line capacity made since 1939. Works valued at £7,750,000 are in hand or have been completed, with a view to easing the most acute bottlenecks of the railway system, which was of course designed to deal with a very different distribution of traffic density. It appears to be doubtful whether much more can be done in this respect in the short run.

Nor, perhaps can very much be expected from the more economical operation of existing equipment. Many innovations, clearly necessary but regarded as not feasible before 1939, have since then been made with this object. The common-user principle has been extended to cover most types of wagons ; privately owned general purpose wagons have been pooled and, in recent months, so have both engines and staffs. More rapid turn-round of wagons has been achieved, but further acceleration is still necessary.

The possibility of formal unification of the four main line companies has been discussed from time to time during the last three years, but no decision has yet been made known. It is doubtful if the short-run advantages of this obvious future development would be very great, at any rate under war conditions.

Measures to restrict non-essential demands for transport services are also represented by the ' zoning ' of deliveries of consumers' goods. In July the Ministry of Food introduced a scheme under which wholesalers of certain bulk commodities such as margarine must obtain their supplies from the *nearest* primary source of supply. In August the distribution of fish was organised in the same way, and before long nearly all such goods will be included in schemes of this kind.

The application of ' zoning ' to the distribution of ' branded ' goods is no less necessary. The attempts of the producers of these goods (the output of which has in many cases been reduced) to maintain their positions in distant markets may easily cause a great deal of cross-haulage and light running. At the same time, the simple prohibition of such practices would be difficult in itself and liable to be unfair to the producers and consumers concerned. The biscuit distribution scheme and the recent agreement among the five largest cigarette manufacturers to pool the manufacture of their brands and so by increasing the number of points of manufacture of each to enable the distance of each point of production from the consumer to be reduced, are therefore of great interest, even though their quantitative importance may not seem very great at the moment.

The capacity of the railways, still the main component of the transport system, being fully exploited, the next step is to consider possible alternative facilities. Much seems to have been hoped of the canals, and great increases in the traffic borne by them have actually taken place, but it was always clear that even with the financial assistance of the Government they could not generally be expected to carry a very significant proportion of the total traffic volume. Similarly, while, though it is not generally realised, a greater quantity of goods is carried by coastwise shipping at present than was carried by this means before the war, the relative contribution of coastal shipping to the traffic volume is not very important.

It appears that, early in the war, the shortage of fuel for goods vehicles, not made any less acute by the postponement until July 1942 of the prohibition of private motoring, led to an indiscriminate transfer of traffic to the railways. To this shortage of petrol has recently been added an acute shortage of rubber, so that economy and restriction of use have tended to be regarded as the governing consideration in road haulage policy. Of late, however, the importance of other considerations has been realised. The great flexibility of road haulage and its relatively low vulnerability from air attack make it specially valuable as an important reserve of transport capacity for use in emergency. While, therefore, the current use of road vehicles must be restricted so as to conserve fuel and rubber, the dispersal of personnel and the permanent laying up of vehicles not in actual use must be avoided, so as to enable advantage to be taken of the technical complementarity of road and rail services.

The simultaneous attainment of these results obviously called for government control, and at the end of the second year of war (October 1941) an attempt was made to replace the somewhat indiscriminate diversion of traffic from road to rail by a more systematic administration of the available road haulage capacity. The first Government Road Haulage Scheme was a complicated compromise. Reluctance on the part of the Ministry to interfere with the peace-time operation of the industry led to the adoption of the principle of ' partnership ' between the Ministry and a voluntary organisation of road hauliers (the Road Hauliers' National Traffic Pool). The idea that the Ministry was to enter the transport market directly as a supplier of services was expressly repudiated, and the traffic dealt with by the scheme was shared between a comparatively small fleet of directly chartered vehicles and the vehicles of the National Traffic Pool. Criticism of the scheme became general in July and August 1942. On the one hand it was said that the Ministerial side of the partnership was staffed by inexperienced ' bureaucrats,' and on the other that the industry representatives were not sufficiently disinterested in matters concerning operation and loading. In any case, there were reliable reports of much light-running, every mile of which became more intolerable as rubber stocks declined. Such light-running would be expected if it were to the interest of the industry as a whole to spread the reduced total load over a less than proportionately reduced number of vehicles—in the absence, that is to say, of any system of compensation.

In September 1942 the working of the scheme was reviewed for the Ministry by Sir F. Heaton, and its unsatisfactoriness seems to have been considered proved, for at the beginning of November a new plan was announced.

This scheme, which to the outside observer, though not to certain local road haulage interests, looks very promising, involves a number of important changes in war-time organisation and a number of innovations of possible future importance, even though the scheme is officially regarded as purely a war-time measure.

In the first place the idea of partnership is definitely abandoned. The Ministry now accepts direct responsibility for the supply and allocation of long-distance haulage of general merchandise. This merchandise will be carried partly by fleets of vehicles taken over en bloc by the Ministry, and partly by vehicles specifically hired. The former will be remunerated on the basis of a guarantee of the average net revenue earned in any two financial years between 1st January 1935 and 31st December 1938 ; while the latter will be paid according to an agreed schedule of standard rates. Both payments will be made irrespective of how far the vehicle is used. This means that the Government accepts responsibility for the standing charges of vehicles which though not currently used may be required in the future.[1]

In passing we may observe that the scheme incorporates a number of principles frequently advocated but always held to be impracticable before the war. In the first place, it distinguishes traffic on the basis of distance and arbitrarily defines ' long-distance ' haulage, to which alone it applies, as traffic carried for more than 60 miles. In the second it makes a clear distinction between types of traffic, being limited to traffic other than domestic furniture, liquids in bulk, ' smalls ' and abnormal indivisible loads. Thirdly, it is stated that in the interests of economy it may be necessary to transfer to public hauliers some traffic at present carried by traders' own vehicles. (The difficulty of controlling ' C licensed ' vehicles was always held to be one of the greatest to be encountered in any scheme of compulsory co-ordination of the transport industries.) Finally, the scheme provides for a considerable concentration of the administration of the industry.

The 25,000 vehicles expected to be included in the plan will be grouped into about 450 units, the centres of which will be existing firms having the necessary facilities. The owners of these vehicles will not lose their commercial identities, and will remain the nominal employers of their drivers. The scheme will be administered under 12 Divisions, coinciding with the Defence Regions, and subdivided into 55 Areas, whose limits do not, generally speaking, cross the boundaries of fuel-rationing districts. Divisions and Areas will be administered by Haulage Officers, who, in accordance with established practice in war-time industrial Control, will usually be drawn from the industry, but have no active personal interest in the operation of any private haulage enterprise. Unit Controllers will generally be members of the staffs of the 'nucleus' firms.

The scheme therefore involves four important elements: direct Government control and administration; the allocation of traffic on a ' distance ' basis; the concentration of administration though not of ownership; and an important measure of ' compensation ' for the inactivity of vehicles made unusable by fuel and rubber shortage. Superficially it marks a great advance on the earlier scheme both as a method of wartime control and as a possible origin of future progressive development of the industry. It has already been criticised by road hauliers and will certainly be criticised still more. Whether the ostensible grounds of criticism, of which the principal is the danger of ' bureaucratic inflexibility,' will prove justified depends very much on how and by whom the areas and regions are controlled. The scheme may also be criticised as potentially creative of monopolistic positions in the industry as well as having the characteristic ' Corporative ' character of most of our war-time Controls. There seems, however, to be a long way to go before the intensely competitive character of the industry is entirely eliminated, and the second risk has caused little public misgiving on its many previous appearances. It certainly looks as though the stress of war may yet bring about the integration of the two principal transport agencies into an efficient national transport system, the attainment of which was found impossible in peace time. E. J. Buckatzsch.

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[1] Arrangements are also being made for the suitable employment of temporarily unoccupied drivers.

INCENTIVES TO THE DEVELOPMENT OF MINERAL RESOURCES.

In 1942 the need for a higher output of war weapons and the correspondingly increased demand for metal ores coincided with the loss to the United Nations of important mineral deposits in the Far Eastern regions and in the U.S.S.R. An extension of existing mines and the opening up of new ones have been attempted by price incentives and by taxation relief. The question arises whether these measures are sufficient to raise the output of ores to the highest possible capacity ; if not, additional incentives and administrative measures to overcome normal commercial considerations would be necessary.

PRICE INCENTIVES

It has been estimated that in U.S.A. a doubling of the basic price would, in the course of three years, increase production of chrome 35 times, of manganese 5 times, of antimony 4 times, and that a trebling of the price would raise production of chrome 150 times, and of antimony 8 times. These estimates, however, seem to have taken no account of bottlenecks in the supply of manpower and machinery, nor of other forces working against the price incentive. True, the production of tungsten was held back by too low a price. The output of mercury in 1941 had doubled in the course of a few months as a result of doubled prices. An increase in the price of zinc from 4½ to 7½ cents. a pound had a similar effect. Closed down mines are reopened and low grade ores in operated mines are exploited.

But the limited effect of the price incentive was shown in extreme form by the action of an American mercury company which ordered the stoppage of production, removal of all mining equipment, and its destruction after a period of 30 days. The action was a protest against the excess profit tax which partly cancelled the benefit of higher prices. It can also be assumed that raised prices often awaken hopes of further increases and may lead to the postponement of mining or to the hoarding of stocks with a view to later still higher profits. In addition, owing to a decreasing elasticity of supply, at a certain point higher prices may stimulate profits more than output, especially in cases of labour shortage.

The U.S. Government acted on the principle that no price advance should be prevented when it was contributory to the primary objective of increasing production and was not at the same time working against other objectives in any significant fashion. But this principle, applied in practice, depends on definitions, on the balance of pros and cons, and it seems more useful as a rough guide for negotiated contracts than as a basis for mining policy.

Mining policy has to decide if the new ore developments are intended for the present emergency only or if they are to stay after the war. Since the United Nations are experiencing such serious shortages in raw materials, there is a movement in some quarters pressing for independence from oversea supplies and for providing additional employment by working the new deposits after the war, even if protective measures should prove necessary. At the same time it is feared that erected capacity may become superfluous in peace time. With estimates of the possible duration of the present conflict varying appreciably, the risk for the investment of new capital is so great that price increases within reasonable limits can rarely induce the necessary capital to come forward from private sources.

‘ COMMERCIAL DEPOSITS ’

A few examples taken from a Senate inquiry in the summer of 1941 into strategic and critical materials in U.S.A.[1] may illustrate the important role which cost and price relations after the war play in the present emergency. The Rustless Steel Corporation was exploring chrome deposits. At that time they could import a ton of foreign ore at $15, but had to pay $25 for transporting home-mined ore of the same grade, in addition to the cost of the ore. Labour costs in Brazil at 40 cents. a day compare with $5.70 a day in U.S.A. In working Brazilian mines low efficiency is balanced by longer working hours. The chairman of the above company pointed out that if the war ended ‘ in some way or another either on a barter basis or something else,’ they could get chromium again at $15 a ton. (The difference in cost, especially with regard to labour and transport applies to most of the strategic minerals.)

Even the War Office had a commercial approach to the problem. They contracted for foreign ores because they were cheaper, and encouraged only the development of ‘ commercially usable minerals ’ at home.

The Senate Commission too considered the shortage of strategic materials, i.e. of materials essential to the war effort, the domestic supply of which is insufficient to meet war-time demands[2]—rather from a commercial point of view : how far new deposits and new processes could compete with foreign sources. The location of storehouses, smelting facilities and manufacturing plants is determined less by a comparison of real costs expressed in terms of a war-economy, i.e. of manpower needed, speed of transport etc., than by money costs such as local taxes, rates for freight, storage and water-power, factors distorted by monopolistic or competitive influences. Resulting from this attitude, output is often diminished by the considerable distances the goods have to travel on their way from the ore to the final product.

To induce, by commercial incentives, the long-term development of non-commercial deposits and plants for a short term emergency seems a problem not easily to be solved. If a government promises now to continue purchases after the emergency at a permanent price when foreign supplies will be available at a considerably cheaper rate, huge stock piles would accumulate which could not fail to depress the market. Even tariffs could protect only minerals whose prices for materials and transport were reasonably close to those of foreign supplies. But in most cases the differences in costs are beyond possible correction by tariffs.

A way cheaper for the consumer and less objectionable than tariffs might be found by a special form of subsidies. If governments now promise to purchase a fixed yearly output of home-mined ores and to resell any surplus above emergency stocks at world market prices, present fears for the fate of non-commercial deposits could be mitigated, and these deposits and plants could be kept at work for future emergencies. Such a development would be easier if now, instead of mining easily accessible ores of very low grade, railways and roads were built which led to ore deposits more distant from existing transport facilities but of considerably higher metal content.

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[1] Owing to the more extensive literature on this subject published in U.S.A., conditions there are referrred to repeatedly although similar phenomena can be observed elsewhere.

[2] Strategic minerals in U.S.A. : antimony, chromium, manganese-ferrograde, mercury, mica, nickel, quartz crystal, tin, tungsten. In British Empire : antimony, borates, molybdenum, pyrites, quicksilver, tin.

EXTENSION VERSUS RESTRICTION

However, the problem of extension is rather intricate. While the continuation of government purchases after the war may be considered necessary, objections are raised against continuation of Government Control in the post-war period. Furthermore, a trend towards extension of worked deposits runs contrary to the restrictive tendencies of monopolies and cartels. The shortage of magnesium was largely due to restrictive agreements of the Aluminium Company of America, the Dow Chemical Company and I. G. Farben. A patent pooling agreement was still in force in June 1942 when a decree was filed making the patents freely available. The zinc shortage can be traced to licensing restrictions of the American company concerned. A shortage of beryllium in this country was prevented by the foresight of Vickers who, in 1938, by the threat of having German patents in England confiscated, succeeded in the revision of an agreement between the Beryllium Corporation of New York and Siemens and Halske, Berlin, according to which Great Britain would have been unable to buy from the American company.[1]

Producers of nickel, highly monopolised, of industrial diamonds and of tin, forming world cartels, are naturally concerned about the possible effects which government stocks, new competition and extended capacity may have on prices. In pre-war days, output figures were often published which were in excess of real production (by combining metal content in ore and pure metal in one figure), either in order to obtain a favourable cartel quota or to produce a certain artificial shortage. It is not known how far this practice has been abandoned.

The Anti-Trust Division of the Department of Justice and the War Production Board have overcome many obstacles to all out production, but many of the restrictive agreements became invalid only after U.S.A.'s entry into the war. The discovery of workable deposits and the development of mines require from 6 to 24 months, while research into low-grade ores, experiments with newly mined ores, erection of experimental and finally of production plants also take considerable time. A strategic-autarkic instead of a commercial approach to the problem of minerals and low grade ores is a recent development among the United Nations. Additional to the high costs in using low grade ores, poor transport facilities (or even their total absence) and high freights have to be considered. Therefore private companies were not interested in or capable of the necessary exploratory work. Industry had worked out its specifications on the basis of imported high grade and low cost ores, and was reluctant to change over to the use of metals obtained from low grade and high cost ores, identified with higher manufacturing costs. For these reasons, the necessary research into the use of low grade ores was neglected.

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[1] Hearings before the Temporary National Economic Committee, Congress of the U.S., Part 5: Monopolistic Practices in Industry.

Traditional economic concepts are weighing heavily on war-time decisions. Canada had been at war for over three years and U.S.A. for over nine months before they decided to cut down or abandon direct gold mining in favour of other minerals more urgently needed. South Africa is still adhering to her gold mining policy. Some 420,000 men are employed there in gold mines, although the output of strategic minerals such as manganese, chromite and copper can still be considerably expanded. Since the American decision foreshadows a break in the attitude towards gold mining at home, South Africa's long-term interests would be as well served by a more pronounced shift towards the mining of strategic minerals. Administrative measures as well as monetary incentives would be necessary for such a change. Capital could be attracted by direct financial assistance and remission of taxes to the new mineral mines. Gold mines could be compensated for decreased production on condition that they participate in opening strategic minerals, while new labour could be enlisted by wages higher than in gold mines.

The full use of existing resources of strategic minerals is limited by still other factors. Many governments are either legally not entitled to explore and develop deposits situated on private property, or, where this right has been granted as a war-time measure, little use is made of it. In parts of the British Empire the exclusive prospecting rights are held by financial groups who employ their own geologists. In Northern Rhodesia, for instance, three companies have been allocated 200,000 square miles for prospecting. The exploratory work organised by the British Government is of a minor magnitude. Thus the Imperial Institute, whose function is to promote the development of the resources of the Empire, had a yearly revenue of £48,000. In other countries, as in U.S.A., the printed reports of official surveyors do not necessarily contain all the results of their findings.

SUBSIDIES.

In order to encourage the prospecting, mining and smelting of small scale operators without sufficient capital, various governments, for instance Australia, Canada, New Zealand and Tanganyika, have provided funds for the purchase or loan of mining equipment. Small producers can have their ore concentrated or smelted in state-owned smelters, and can also obtain chemical analyses cheaply or free of charge.

Some countries, such as Canada and Australia, give bonuses on the discovery of workable deposits and on the production of certain minerals. In many cases royalties payable are reduced for low grade ores. The decisive importance of tranport facilities for output of ores has led to the creation of funds for the construction or improvement of roads to the deposits. Reduced freight rates have also been granted. The application of the lessons, drawn from these experiments, on a large scale and in all countries seems to be one of the foremost tasks. Not much attention seems to have been given to the problem of complex ores. Since ores often contain, in addition to the chief metal, some other metal commercially not worth while refining, this complementary metal could possibly be won for the war effort by some form of subsidy.

A new income tax bill in Australia provides for 20% of profits derived from metal mining to be exempted from taxation. Marked increases in production will be rewarded by a higher rate of tax exemption.

Mainly lead and zinc will be affected by this measure. High cost producers of copper and tin are receiving subsidies from a fund into which the receipts of a general levy on increased selling prices flow.

By the British Finance Act 1941, Section 31, producers of cobalt, copper, gold, iron, manganese, tin, tungsten, vanadium, zinc and crude petroleum receive tax relief if the output is higher than at a standard period. Exemption from E.P.T. amounts to 5% for mines exhausted after 30 years, and rises to 30% for mines with a life expectation of a few years only. The Rhodesian copper companies belonging to the very few Empire mining companies registered in U.K., and therefore liable to E.P.T., are trying to reverse the attitude of Inland Revenue authorities who include the undeveloped areas in their definition of lifetime. The inclusion of worked mines only would probably encourage the Rhodesian producers to exhaust their opened up mines more quickly.

In U.S.A. in February 1942, through the Office of Price Administration, a production premium scheme which provided for payments above ordinary prices for a period of 2½ years was introduced with the help of which high cost metal mines should be brought into production. In addition special price bonuses are granted for supplies of important metals such as lead and spelter in excess of last year's level. The special ' wasting assets ' provisions of the British E.P.T. are designed to protect mining and oil companies against the sacrifice of future profits.

According to a recent statement (29/9/42), companies which, contrary to normal methods, concentrate on the mining of high grade ores and thereby increase their post-war costs, will also receive concessions on E.P.T. The relief takes account of the higher costs of production which are to be measured by the increase in the average yield of the ore produced.

Government subsidies for refining plants have been granted in various forms. Government and private capital are sharing the erection, management, ownership and finance of new plants in all possible ways. In most cases with the Government as owner, the company may buy the plant after the war at a price to be then determined. On 31st December 1941, the ratio of Government to privately financed expansion in U.S.A. was estimated at 0.6 : 1, the ratio of expansion on the way at 3.5 : 1, and that of projected and expected expansion at 7 : 1.

British contracts for non-ferrous metals concluded by the Non-Ferrous Metal Control are based on pre-war prices plus allowances for increased production costs, f.o.b. port of shipment ; freight and risk of loss in transit go on account of the British Government. Since the prices of the most important metals were, before the outbreak of war, at a peak, the low costs of production, the certain market and the fixed price represent a good incentive for production within the limits of existing plant capacity. The price for copper, for instance, is considerably above the average cost of production. Since increases in costs during the war are refunded, any wage increases will actually be paid not by the companies but by the British Government, which should possess a fund of some million pounds out of the margin between the price paid to the producer and that obtained in reselling the metals to the consumers.

In U.S.A. costs of production and prices are generally negotiated on a *bona fide* basis when contracts for ores are placed. The statements of the contracting firm with regard to deposits available, output possibilities, initial and current costs of production, are accepted as far as they remain within reasonable limits. By this method large contracts had been placed, sums for the purchase of ores reserved, and finally no supplies came forward. In cases where no agreement on prices can be reached, precious time is often lost before a contract can be placed.

LABOUR.

The upward trend of wages in war factories resulted in a drift of the comparatively low paid miners to industry. Of the 10,000 U.S. miners estimated to be freed by the closing down of gold mines, not more than 2,000 are expected to change over to copper and other non-ferrous operations, the rest joining into the exodus of workers from mines and mills to the shipyards and aircraft plants. In July copper output in U.S.A. could have been higher by about 8% (=5,000 tons) if sufficient labour had been available. By the American draft system, which does not provide for reserved occupations as yet, some copper, zinc and lead mines have been deprived of up to 20% of their labour force by recruitment.

A war manpower commission was appointed in April but it is still in process of organisation. The deferment of miners essential in their present employment is also considered by the Director of Selective Services. Before decisions are made, the labour force in the mines will shrink further, especially since the issue of an Essential Work Order has not yet been possible, and the stabilisation of wages will lead to a continued shift of the miners to other more highly paid employment.

In Canada, owing to an acute labour shortage in the mining industry, the output of copper and other war essentials was reduced. In order to make the best use of existing labour resources, production was limited to a *maximum* rate ; permission is necessary for working new deposits and for an increase of output above the average monthly tonnage of the first four months of 1942.

In Bolivia, labour shortage led to a drop of tin shipments from 3,587 tons in May 1941 to 2,864 tons in May 1942, in spite of considerably higher prices paid for Bolivian tin.

CONCLUSIONS

The war effort will benefit whenever strategic needs can be placed before post-war considerations and traditional prejudices. But, in given circumstances, incentives to profits and wages often prove necessary for an increase in production. Among the many steps taken so far, subsidies to small scale operators and to new high cost mines, the public financing of emergency roads, the revision of rates for transport, water power and taxes seem particularly worthy of attention.

More use can still be made of other measures, such as centralised organisation and financing of prospecting work and of research into the use of low grade ores ; guarantees of earnings of new mines over a specified period of years ; application of war emergency powers for development work on private property ; a stricter control of statements by contractors as to new deposits and costs of production ; shifts from gold mining to the mining of strategic minerals ; improvement of labour conditions in order to attract manpower and lessen absenteeism and loss by strikes ; treatment of mining as a reserved occupation ; placing of mining equipment high in the priority list for steel etc.

Steps taken up to the present are more in the nature of incentives to capital, while the measures still to be applied on a large scale are partly of an administrative character, partly incentives to labour.

S. Moos.

THE ECONOMIC SIGNIFICANCE OF FRENCH NORTH AFRICA

When the disorganising effects of the French collapse of 1940 were gradually overcome, North Africa again shipped her staple commodities to Europe, a small part to European neutrals but the bulk to Vichy France and German Europe. Before the war, vegetable and animal products represented up to 90% of the total value of exports from Algeria and over 75% of the value of exports from Tunisia. In French Morocco, too, the bulk of the export trade consisted of agricultural products, though mineral production is not without significance in either of these countries (viz. Table I). The basic structure of export trade has not changed since 1940. For France the imports from her empire were in addition to the meagre rations which the Germans left her. The deliveries of food and feeding stuffs imposed on Vichy France by the Germans were partly made good by imports from North Africa, and at the same time Vichy France obtained some bargaining power in negotiating supplies of imported commodities.

Some information about North African exports to Europe is now available. During the first eight months of this year almost 3 million tons of raw materials and food-stuffs were imported into French Mediterranean ports from French North and West Africa, the latter contributing a very small portion of the total. There are indications that the principal exports from North Africa had already reached or even surpassed the 1938 level.

TABLE I.

Production of Minerals in French North Africa, 1938[1]

(000 metric tons)

	French Morocco	*Algiers*	*Tunisia*	*Total French North Africa*
Iron ore	140	1,640	460	2,240
Manganese ore	40	—	—	40
Lead ore	17.1	4.4	16.1	37.6
Zinc ore	2.5	7	0.7	10.2
Antimony ore	262[2]	150[2]	—	412[2]
Molybdenum ore	100[2]	—	—	100[2]
Coal	123	13	—	136
Natural phosphates	1,447	584	2,034	4,065
Cobalt	554[2],[3]	—	—	554[2],[3]
Nickel ore	300[2]	—	—	300[2]

[1] Source : Statistical Yearbook, League of Nations 1940/41 ; for ores, figures refer to metal content.

[2] In tons.

[3] 1937 (Raw Materials and Foodstuffs, League of Nations 1939).

We take mineral supplies first. Exports of natural phosphates in 1941 were probably not more than half the peace-time exports, but they were running at a higher rate in 1942. Between January and August 1942, 1.6 million tons were shipped to French ports, half as much again as during the whole of the preceding year. In addition, there were considerable exports to Italy and Spain. In each year the greater part, and presumably up to two-thirds, was destined for German Europe. In view of the existing deficiencies of phosphates which compelled the German authorities to reduce superphosphate allocations to agriculture to 33% of peace-time consumption, the shortage will become more acute. Its effects may not be felt immediately, but should become visible in crop yields one or two years hence. Phosphates, which are also used for industrial and war purposes, are the main loss to German supplies. Exports of iron ore had already been reduced drastically because of the shipping shortage and those supplies that were still obtained from North Africa can probably be replaced from other sources. On the other hand British iron production will at last be able to fall back upon one of its normal sources of supply. Before the war, British imports of iron ore from Algeria and Tunisia were larger than imports from Sweden and accounted for about a third of the total. As to cobalt, nickel and molybdenum ore, their importance is much greater than the small absolute magnitude of the quantities involved would suggest. It is doubtful whether molybdenum production in Norway can be sufficiently increased to make up for Moroccan supplies which are no longer available. Unless new deposits of cobalt have been found on the Continent it would appear that Germany has no alternative sources of this mineral. Apart from steel-making it is also being used as a catalyst in the production of synthetic oil and its importance on this account need hardly be stressed.

Yet, control over French North Africa will bring new economic commitments as well as gains. All three countries are considerable importers of coal; the United Kingdom alone exported to French North Africa well over a million tons a year. In 1937, imports of motor spirits exceeded 120,000 tons. These supplies will have to be resumed if the transport system is to be brought back to normal efficiency.

In view of the greatly superior agricultural supply position of the Allies, losses of agricultural supplies to German Europe will be more important than corresponding allied gains.

The figures in Table II only give a very rough indication of what the present state may be. It is almost certain that the pre-war export surplus in wheat of about 250,000 tons in 1938 was reached again in 1941 and it may have risen since in response to higher prices. The approximate balance between exports and imports of meat before the war may have given way, if the experience of 1914—1918 is any guide, to a considerable export surplus; trade in cattle and sheep is more important than in meat.

The loss of North African supplies of wool and hides—though they are not very large in themselves—hits a vulnerable spot in Germany's war economy; this also applies with special force to the loss of olive oil, no matter whether imported olive oil was used as food or admixed to lubricants to stretch short supplies. Sugar is the most important debit item in the agricultural balance of French North Africa; almost a quarter of a million tons was imported in 1935. Other credit items are wine, food, vegetables, and canned fish. Finally, the United Kingdom used to cover almost the whole of its needs of esparto grass (for paper making) in French North Africa, importing about 300,000 tons a year, practically all that the three countries produced.

TABLE II.

Production of Agricultural Raw Materials and Foodstuffs in French North Africa in 1935 and 1938, together with Net Imports (+) and Net Exports (—) in 1935 *
('000 metric tons)

	French Morocco			*Algiers*			*Tunisia*			*Total French North Africa*		
	Trade	Production		Trade	Production		Trade	Production		Trade	Production	
		1935	1938		1935	1938		1935	1938		1935	1938
Wheat	—177	545	631	—248	913	951	—150	460	380	—575	1918	1962
Maize	— 67	139	217	+ 2	4	4	+1.3	6	6	—63.7	149	227
Barley	—122	780	1086	+6	719	587	—75	310	100	—191	1809	1773
Oats	—11	15	48	0	106	158	—15	18	30	—26	139	236
Wheat Flour	0			—34			—17			—51		
Olive oil	+0.9	9.0	8.0	—25.9	13.0	10.3	—49.1	60	25	—74.1	82	43.3
Sugar	+143			+70			+32			+245		
Wool	—0.8	18.5	20.3	—1.5	7.3	7.4	—0.3	5.4	3.7	—2.6	31.2	31.4
Hides	—3.4†			4.7†			—1.0†			—9.1†		
Esparto grass	—36.8§			—182§			—99.2†					

* Source - Raw Materials and Foodstuffs, League of Nations 1939. International Trade in Certain Raw Materials and Foodstuffs, League of Nations 1939, Int. Yearbook of Agr. Statistics 1937—38. 1935 is the last year with normal harvest and trade conditions.

† Exports in 1937. § Exports in 1938.

On the whole the Allies gain more than the Axis loses ; they would gain immensely, even if French North Africa were nothing but barren desert, solely through the opening up of the whole Mediterranean basin up to Palestine and Turkey and including Southern Spain, both for supplies and deliveries.[1] Moreover, any surplus of food stuffs (fruit, vegetables cereals, meat and fish) relieves the supply position of the Middle East and of the considerable forces which have to be maintained there. Algerian iron ore and phosphates will come in usefully as return freights of the munition ships. On the other hand French North Africa will now look to the Allies to remedy some of the great deficiencies which have hampered her economy : the lack of fuel and industrial goods. Furthermore, administrative ability and co-operation between North African and Allied authorities will soon be needed to curb the inflationary tendencies which have been apparent in the last two years, and which are likely to be reinforced by the additional demand of the British-American forces.

J. GOLDMANN.

DIARY

THE DISTRIBUTION OF HOUSEHOLD GOODS

On November 3rd, Mr. Dalton reviewed the changes that have recently been made in the Board of Trade's plans for the production and distribution of home civilian supplies. The operation of Utility Schemes for all essential civilian needs is ensuring that adequate supplies of these goods will be forthcoming at reasonable prices ; but the plans for the distribution of these supplies do not appear to be as satisfactory in all groups of commodities. In household goods particularly is this the case, no less than three different criteria of distribution being in operation.

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[1] According to an estimate of the War Shipping Administration between 1.5 and 2 million tons of shipping will be saved when the Mediterranean route can be used.

Firstly, household textiles are grouped with clothing, and coupons have to be surrendered for the purchase of towels, tea-towels, and most curtaining material. Secondly, new furniture, all of which is exclusively Utility, is to be sold under a system of licensing which will give priority to special needs, such as those of bombed out families or newly married couples. Thirdly, other household goods, crockery, pots and pans, and also stocks of second-hand and new furniture already in existence are still distributed haphazardly at the cost of shortages and queues, unless some form of rationing is voluntarily undertaken by the retailer.

The grouping of household textiles with clothing has two main advantages. It is a simplification to bring all textiles under one system of points, since the unit of measurement is the same, and to do so restricts the demand for both kinds of textiles. As Mr. Dalton has warned us ' we must make our clothes and all our household goods last longer.' Therefore the method is unexceptionable where each individual householder is presumed to have stocks of each kind, but this is true only of the general case as the method adopted for furniture will show.

Here a different criterion is adopted and it is recognised that the need might be sporadic in character. If this is true of furniture, it will be true (and the same degree of urgency will apply) of household textiles. To supplement the general case where the problem is merely the keeping up of stocks of clothing and household textiles extra clothing coupons should be granted to the persons receiving a licence to purchase new furniture.

There seems no reason why the licensing should apply only to sales of new (Utility) furniture. Stocks of first-hand and second-hand pre-Utility furniture may be considerable and these might be subjected to licensing and sale at subsidised prices. Prices of pre-Utility furniture, though controlled, are exorbitant, one reason for the present maldistribution. The total available supplies of furniture would therefore be more equitably distributed by licensing than under the present system, by which the person with the long purse can still obtain unlimited supplies, whereas to persons wishing to buy cheap furniture supplies are restricted.

In the case of other goods there is no attempt to organise distribution according to need. Three Committees have been set up to ensure a 'fair' distribution of supplies between retailers of clothing, pottery and hollowware but the most such bodies can ensure is that the distribution between localities is roughly proportional to demand. Within each locality, since the prices of goods are fixed, distribution will be determined by the amount of time available for ' shop-hunting.' Some system should be instituted whereby the special furniture licences mentioned will ensure access to supplies of other household goods, such as crockery, to relieve the worst cases of hardship.

SHIPBUILDING

The Report on shipbuilding of the Select Committee on National Expenditure[1] records that ' an excellent job has been done ' by the shipyards. Output has increased despite the vast expansion of repair work and naval shipbuilding. Output per worker has substantially increased despite the grave difficulties confronting labour (especially the dislocation caused by air-raids, blackout etc.) and is, strange as it sounds, twice that in the U.S.[1] This result has been achieved (so the recommendations of the Committee imply), (*a*) with only very partial use of prefabrication, (*b*) by reopening only 23 yards, (*c*) without a standardisation of the ship-types or even the types built in any one yard, (*d*) without wholly pooling shipyards or at least their manpower, (*e*) in spite of continued unsatisfactory labour relations in the yards (especially the Clyde yards).

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[1] 17th Report, Session 1941/42.

Yet the Committee did not concentrate its recommendations on the reorganisation of the shipbuilding programme and industry to remedy the above points.[2] On the contrary it complains that the workers have a wrong 'attitude.' This 'attitude' is due to the 'misconception' that private owners build 'fancy' ships and that the Admiralty encourages waste by 'cost plus' contracts. But are they misconceptions? The Committee itself points out in a subsequent passage that too many types of ships are built and that orders are haphazardly distributed. And it is the Committee which demands that the price of a ship should be settled before launching (if possible).

The proposals of the Committee that the figures of shipping losses should be published, in order to bring home to the shipyard workers the gravity of the situation, and that 'slackers' should be de-reserved,[3] cannot themselves solve the problem. Moreover, the latter rather peremptory proposal contrasts unfavourably with the Report's request that the Ministry of Labour should use its influence to persuade employers to make the fullest use of yard committees. A better procedure would be to ask the Admiralty Control to instruct employers on this matter.

The Committee has failed to enquire into the basic problem, whether the lack of a (temporary) direct Government control of shipbuilding is responsible for the technical shortcomings and bad labour relations exemplified by a number of strikes. Once a complete pooling of shipyards were established as a basis for optimum production, it would then indeed be reasonable, if it were still necessary, to put pressure on the workers. In addition such a reorganisation would also facilitate the working out of a wage policy, the lack of which, according to the Committee, prevents full use of available labour.[4]

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[1] The Committee must mean twice the productivity of *all* workers employed on building ships, i.e. including those who work on 'pre-fabricated' parts. Labour used for pre-fabrication and for assembling pre-fabricated parts in U.S.A. is much more diluted than the specialised shipbuilding labour used in this country. The comparison is probably also complicated by the constant *increase* of ships *in construction*, hence a decrease of productivity of labour as measured by the launching of ships in the *same* period. The degree of inaccuracy of the ratio of the output per worker in Britain and U.S.A. depends upon the length of the average construction period and the rate of increase in shipbuilding labour.

[2] Though it recommended that the *existing* unsatisfactory organisation should pay some attention to the problem of dilution of shipyard labour or dilution by increasing use of pre-fabrication.

[3] The Ministry of Labour once before pointed out that to treat the call-up into the Army as punishment is a dangerous precedent.

[4] Shipbuilding workers were especially insistent on opposing the increase of direct taxation—which in effect meant increasing taxation on marginal (overtime) income. The resistance was, presumably, due to the relatively low basic wages in the industry which also prevented recruitment of workers from allied (engineering) industries.